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A Miniature 1/4-Inch Diameter 24-Pin Plug and Receptacle

The problem:

A miniature 24-pin plug and receptacle, which would eliminate the need for permanent fixed leads, was required for use on wind-tunnel force balances.

The solution:

A 1/4-inch diameter 24-pin plug, as shown in the figure, was developed for this application, eliminating the tedious and time consuming hookup procedures.

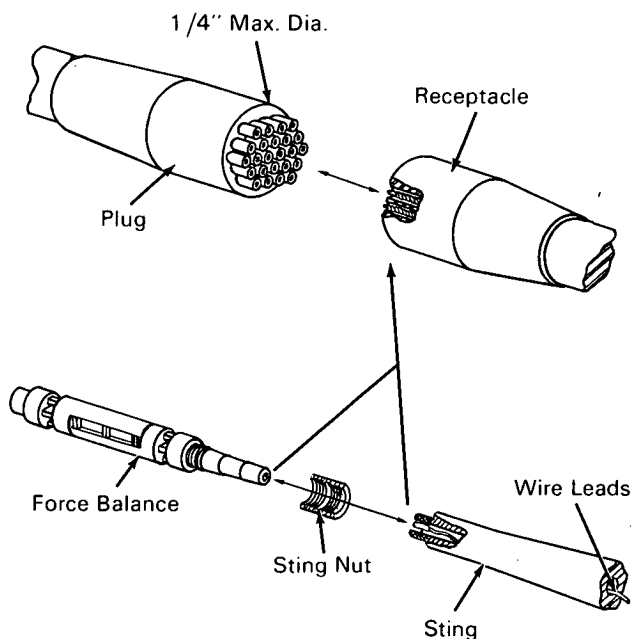
How it's done:

An injection-molded male connector was installed in the taper end of a strain-gage balance. The receptacle, also injection molded, and fitted with standard "twist pin" contacts and attached leads, is routed through the wind-tunnel sting and support structure which completes the connection to the instrumentation system. These connectors provided positive connection in applications where space was a problem. The connectors are capable of operating in a temperature environment from -65° to $+300^{\circ}$ F.

Notes:

1. The 24-pin plug and receptacle can be used in the interface connections of microelectronic modular assemblies and in electric and electronic systems where subsystems must be removed or interchanged.
2. No additional documentation is available. Specific questions, however, may be directed to:

Technology Utilization Officer
Langley Research Center
Langley Station
Hampton, Virginia 23365
Reference: B70-10249



Miniature Plug and Receptacle

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

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